

## ABSTRACT of the Disclosure

The present invention relates to cell culture apparatus and a cell culture vessel/roller bottle cap. The apparatus comprises a rotor releasably housing a plurality of cell culture vessels/roller bottles. The apparatus has means to allow rotation of the rotor at a controlled speed about a substantially horizontal axis and further means to allow the rotational axis of said rotor and said bottles housed therein to be tilted to a substantially vertical position in order to allow fluid to be supplied or drain therefrom. Each vessel is provided with a cap equipped with a fluid supply/drain connection arranged at the lowest point of the cap when said vessel is vertically inverted (as shown in Figure 1). The supply/drain connection of each bottle cap is connected to a manifold that allows the supply or extraction of fluid via a sealable external connection. Venting of the gas space within the bottle during fluid transfer is provided by means of a snorkel tube passing upwards through the fluid, and formed as an internal extension of the bottle cap. The snorkel tube is provided with a micro-porous filter, venting to atmosphere. During cell incubation stages the assembly of vessels is rotated about a horizontal axis in the known manner.

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